

## ABSTRACT

A photoelectric encoder has a telecentric optical system in which a first lens and an aperture located at a focal position of the first lens are interposed between a main scale and a photoreceptor. At least a second lens is interposed between the aperture and the photoreceptor with a focus of the second lens on the aperture, thereby constituting a bilateral telecentric optical system. This makes it possible to improve the signal detection efficiency and increase the assembly tolerance.